## ABSTRACT

The invention concerns arrays of solid-forms of substances, such as compounds and rapid-screening methods therefor to identify solid-forms, particularly of pharmaceuticals, with enhanced properties. Such properties include improved bioavailability, solubility, stability, delivery, and processing and manufacturing characteristics. The invention relates to a practical and cost-effective method to rapidly screen hundreds to thousands of samples in parallel. The invention further provides methods for determining the conditions and/or ranges of conditions required to produce crystals with desired compositions, particle sizes, habits, or polymorphic forms. In a further aspect, the invention provides high-throughput methods to identify sets of conditions and/or combinations of components compatible with particular solid-forms, for example, conditions and/or components that are compatible with advantageous polymorphs of a particular pharmaceutical.

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